Long Reach Ethernet				LRP PoE Injectors, Extenders		
Model		LRE-101	LRE-101C	LRP-101C-KIT	LRP-101U-KIT	LRP-111U-KIT
Product Image						
Interfaces	10/100BASE-TX	1	1	LRP-101CH/LRP-101CE: 1	LRP-101UH/LRP-101UE: 1	LRP-111UH/LRP-111UE: 1
	PoE Injector Ports	–	–	LRP-101CE: 1	LRP-101UE: 1	LRP-111UE: 1
	Long Reach Ethernet Port	1 x RJ45	1 x BNC	LRP-101CH/LRP-101CE: 1 x BNC	LRP-101UH/LRP-101UE: 1 x RJ45	LRP-111UH/LRP-111UE: 1 x RJ45
	Maximum Distance	LAN: 100 meters	LAN: 100 meters	PoE+: 100 meters	PoE+: 100 meters	PoE++: 100 meters
		UTP: 800 meters Phone wire: 1,200 meters	Coaxial: 2,000 meters	Power over Coaxial: 1,000 meters	Power over UTP: 500 meters	Power over UTP: 800 meters
PoE Standard		–	–	IEEE 802.3at PoE+	IEEE 802.3at PoE+	IEEE 802.3bt PoE++
Mechanical	Dimensions (W x D x H)	94 x 70 x 26 mm	94 x 70 x 26 mm	94 x 70 x 26 mm	94 x 70 x 26 mm	30 x 70 x 104 mm
Environment	Operating Tempeture	0 ~ 50 degrees C	0 ~ 50 degrees C	-20~70 degrees C	-20~70 degrees C	-40~75 degrees C
	Operating Humidity	5 ~ 95% (non-condensing)		5 ~ 95% (non-condensing)		

LRP Managed Switches				
Model		LRP-422CST	LRP-1622CS	LRP-822CS
Product Image				
Hardware	10/100/1000BASE-T	2	2	2
	100/1000BASE-X SFP slot	2	2	2
	Console	1 x RS232-to-RJ45 serial port (115200, 8, N, 1)		
	LRP over coaxial PSE BNC connectors	4	16	8
	Maximum Distance	Max. 200m with PoE+ output (1,640ft.)/Max. 400m with PoE output (2,624ft.)/Max. 1200m without PoE output (3,937ft.)		
Mechanical	Dimensions (W x D x H)	107 x 72 x 152 mm	440 x 300 x 44.5 mm, 1U height	
Environment	Operating Tempeture	-20 ~ 75 degrees C	0 ~ 50 degrees C	
	Operating Humidity	5 ~ 95% (non-condensing)		

VDSL2 Bridges			
Model		VC-231GP	VC-231GF
Product Image		PoE+	SFP
LAN Port		1 x RJ45, 10/100/1000Mbps w/ 802.3at PoE+	1 x SFP, 1000Mbps
Coaxial Port		–	–
VDSL/Phone Port		1 x RJ11(VDSL2)	1 x RJ11(VDSL2)
VDSL Standard		ITU-T G.993.2 VDSL2	ITU-T G.993.2 VDSL2
G.Vectoring		●	●
VDSL Mode		Selectable CO/CPE	Selectable CO/CPE
VDSL Profile		30a	30a
Maximum Speed		200/100Mbps (DS/US)	200/100Mbps (DS/US)
Maximum Distance		1400 meters	1400 meters
Splitter		–	–
Management Features		Selectable G.INP and interleaved mode, selectable sym./ asym. band plan, selectable 8dB/12dB SNR mode	

VDSL2 Bridges, Switches						
Model	IVC-234GT	VC-234G	VC-232G	VC-231G	VC-234	VC-231
Product Image						
LAN Port	4 x RJ45, 10/100/1000Mbps		1 x BNC, 10/100/1000Mbps	1 x RJ45, 10/100/1000Mbps	4 x RJ45, 10/100Mbps	1 x RJ45, 10/100Mbps
Coaxial Port	1 x BNC, female connector	–	1 x BNC, female connector	–	–	–
VDSL / Phone Port	1 x RJ11 (VDSL2, Phone)	2 x RJ11 (VDSL2, Phone)	–	1 x RJ11 (VDSL2)	2 x RJ11 (VDSL2, Phone)	1 x RJ11 (VDSL2)
VDSL Standard	ITU-T G.993.2 VDSL2	ITU-T G.993.2 VDSL2	ITU-T G.993.2 VDSL2	ITU-T G.993.2 VDSL2	ITU-T G.993.2 VDSL2	ITU-T G.993.2 VDSL2
G.Vectoring	●	●	●	●	–	–
VDSL Mode	Selectable CO/CPE	Selectable CO/CPE	Selectable CO/CPE	Selectable CO/CPE	Selectable CO/CPE	Selectable CO/CPE
VDSL Profile	30a	30a	30a	30a	CO Mode: 17a, 30a	CO Mode: 17a, 30a
Maximun Speed	200/100Mbps (DS/US)	200/100Mbps (DS/US)	200/100Mbps (DS/US)	200/100Mbps (DS/US)	100/100Mbps (DS/US)	100/100Mbps (DS/US)
Maximum Distance	1400 meters	1400 meters	1400 meters	1400 meters	1400 meters	1400 meters
Splitter	-	●	–	–	●	–
Management Features	Selectable G.INP and interleaved mode, selectable sym./asym. band plan, selectable 8dB/12dB SNR mode				Selectable fast and interleaved mode, selectable target 17a / 30a profiles,selectable target SNR mode	

PLANET Networking & Communication

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Long Reach PoE, Long Reach Ethernet & Last Mile Transmission Solutions

Realizing the Long Reach Networking with Various Media

PLANET Long Reach PoE (LRP) solution is designed to extend IP Ethernet transmission and inject power simultaneously over any existing coaxial, UTP, twisted-pair cable or telephone wires for distance up to 1,000m (3,289ft) into PoE IP camera, PoE wireless AP and any 802.3af/at complied powered device (PD). The solution also eliminates the need for an additional power supply for remote sites when the existing single power source enables to provide power to both LRP extenders and the PDs at long range.

PLANET Last Mile Transmission Solution includes 4 different kinds of technologies such as ADSL2+, VDSL2, GEPON, and Fiber for various applications. For each technology, PLANET provides not only CO (Central Office) side of equipment for ISP but also CPE (Customer Premises Equipment) side of device for end users. PLANET Last Mile CO equipment and CPE devices enable long distance IP Surveillance deployment and many multimedia services to be realized on local high speed Internet, such as:

- IPTV/HDTV
- VoD (Video on Demand)
- Voice over IP
- Online Gaming
- Distance Education
- Video Conference/Video Phone
- Internet Radio/Online Music

PLANET perfect Last Mile Transmission Solution with the combination of CO and CPE provides the excellent bandwidth to satisfy the triple play devices for home entertainment and communication.

Last Mile Transmission VDSL2

PLANET VDSL2 Solution contains multiple-port CO VDSL2 Managed switches and various VDSL2 CPE models for telecoms, ISPs, SIs, IP surveillance providers, etc. The total VDSL2 solution offers the absolutely fastest data transmission speeds over existing cooper telephone lines without the need of rewiring.

The Best Last Mile Solution

- Quickly provides cost-effective, high-speed broadband connection services
- Symmetric 200Mbps downstream and 100Mbps upstream data rate
- Meets increasing demand for high-bandwidth triple play services

Co-existence with Traditional Phone

- Built-in POTS splitter provides flexible linking option
- Selectable VDSL2 profile and band plan for worldwide service provider
- Various CPE models for a wide range of customer applications
- Wired router, IEEE 802.11n wireless router, converter and CPEs available on demand

Carrier Class

- DC powered CO switch for telecom applications
- High reliability and easy maintenance
- Powerful SNMP, CLI, and Web GUI management features are provided for ease of use

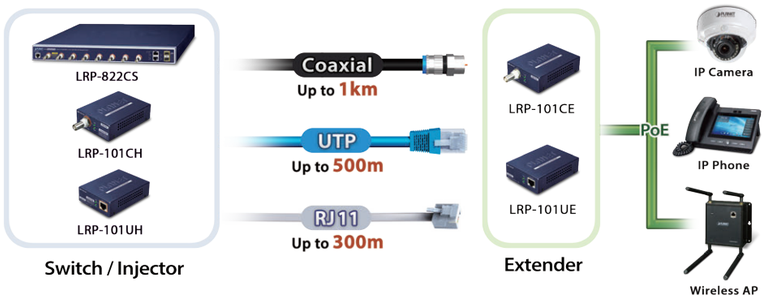
Advanced Security

- Comprehensive Layer 2, Layer 3 and Layer 4 Access Control List (ACL) to filter out unwanted traffic
- MAC filter, static MAC, IP/MAC binding and port security for enforcing security policies to the edge

Long Reach PoE Solution
Last Mile Transmission Solution VDSL2

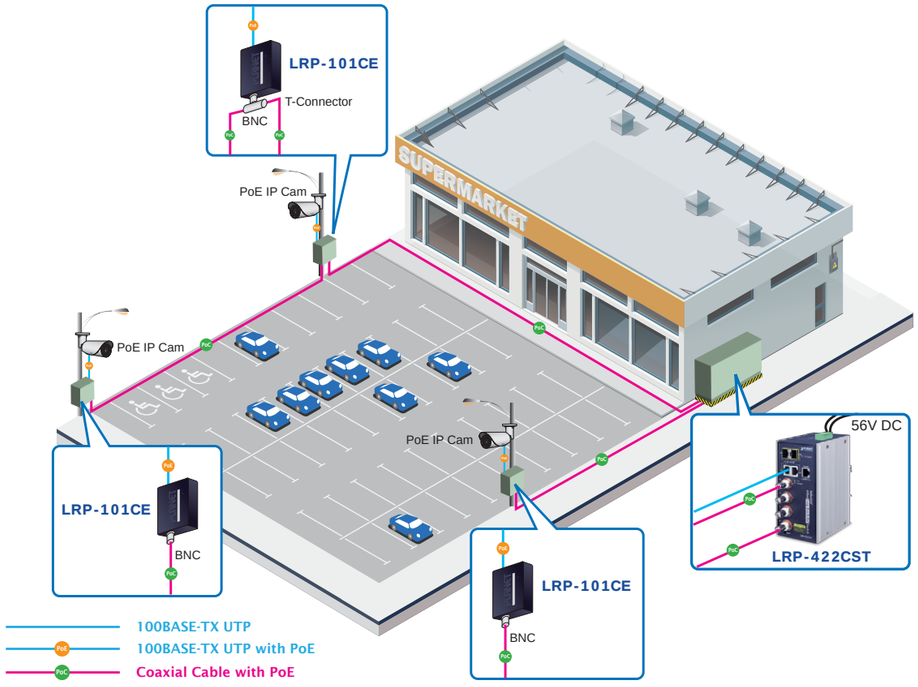
Fast Recovery and Reliable Transmission in Long Distance

PLANET Long Reach PoE solution provides superior performance of reliable data and power transmission in long distance for any kind of environment. It can quickly recover the network connection in less than 5 seconds if a connection fails, which is 6 times faster than that with normal Ethernet technology.



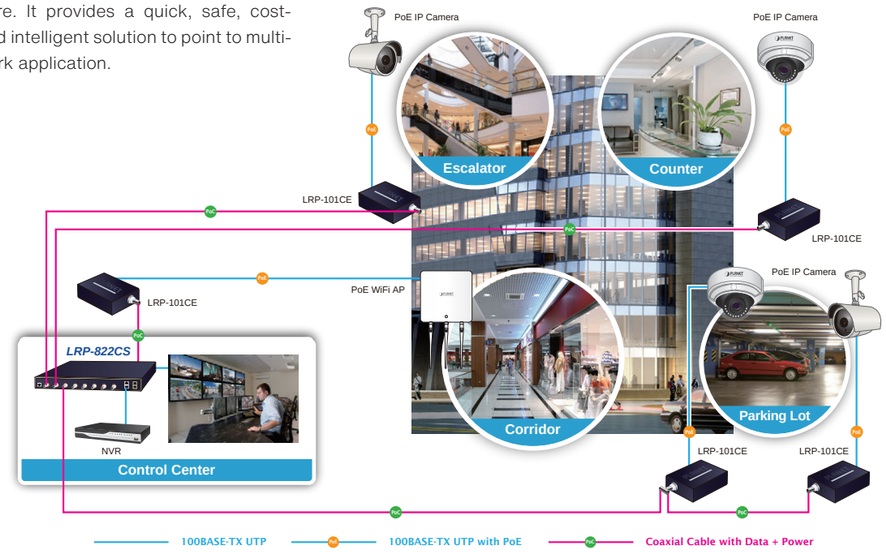
Plug-n-Play Point to Point Application

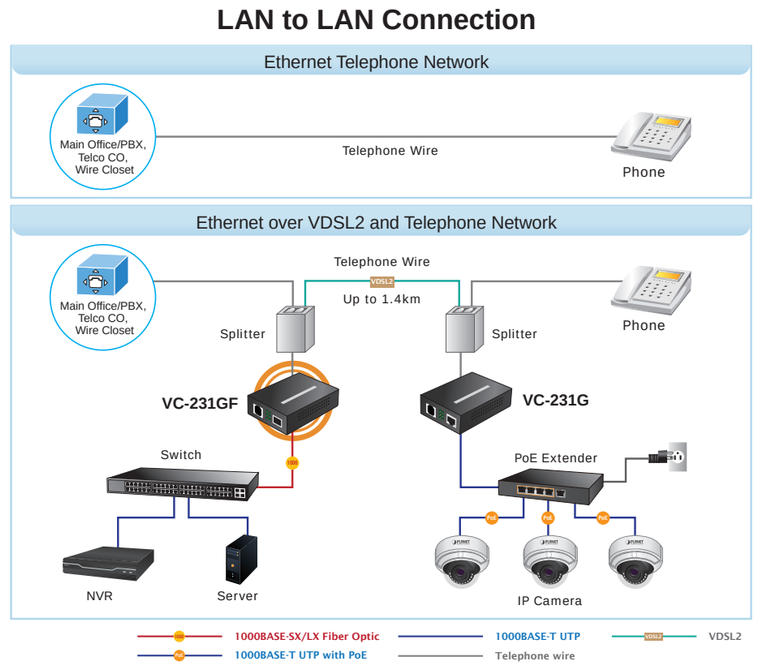
PLANET Long Reach PoE solution provides point to point application for easy plug-n-play operation and deployment in climatically demanding environments with wide temperature range from -20 to 70 degrees C. Without the limit of power source, it makes the installation of remote PoE powered devices easier and more efficient.



Intelligent Point to Multi-point Application

Featuring advanced IPv6/IPv4 dual stack management, built-in L2/L4 Gigabit Switching engine and industry-leading PoE management functions, PLANET Long Reach PoE switches can easily build a power system for centrally-controlled IP cameras or wireless APs with high-availability network infrastructure. It provides a quick, safe, cost-effective and intelligent solution to point to multi-point network application.



High-performance Ethernet over VDSL2

Via the latest VDSL2 technology with 30a profile supported, PLANET VDSL2 solution offers fast access to Internet, up to 100Mbps for both downstream and upstream data transmissions. VDSL2 absolutely offers the fastest data transmission speed over the existing copper telephone lines without the need for rewiring. With integrated support for the ITU-T's new G.993.5 Vectoring technology, PLANET VDSL2 solution works in conjunction with vectoring-enabled DSLAMs to remove crosstalk interference and improve maximum line bandwidth across the existing copper infrastructure.